# Python Classes/Objects

Python is an object oriented scripting language. Almost everything in Python is an object, with its properties and methods.

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```
class MyClass:
  x = 5 #class attribute or variable
  def sayHello(self):
    print("Hello")
    print(MyClass.x) # to access class variable
p1 = MyClass()
print(p1.x)
p1.sayHello()
```

# Classes – init function (Constructor)

```
class Person:
  def __init__(self, name, age):
    self.name = name #instance attribute of variable
    self.age = age
  def myfunc(self):
    print("Hello my name is " + self.name)
p1 = Person("Peter", 26)
p1.myfunc()
```

# Classes – Inheritance Property

Inheritance is a technique of creating a base class and then have other classes inherit its methods.

```
class Mammal:
  def walk(self):
    print("walking...")

class Dog(Mammal):
  def bark(self):
    print("barking...")

dog = Dog()
dog.walk() # inherited from Mammal
dog.bark() # defined in Dog
```

# Inheritance – super method

```
class Emp():
    def __init__(self, id, name):
        self.id = id
        self.name = name
class Freelance(Emp):
    def __init__(self, id, name, addr):
        super().__init__(id, name)
        self.addr = addr


newemp = Freelance(101, "Ria", "Delhi")
print(newemp.id,newemp.name,newemp.addr)
```